

ADWR GOLF PROGRAM AND UPDATES

Presentation to Arizona GCSA, March 2016
Jeff Tanner, Active Management Area Director



Active Management Areas (AMAs)



Water Sources

- ⦿ Groundwater
- ⦿ Surface Water
- ⦿ Central Arizona Project (CAP)
- ⦿ Reclaimed Water (Effluent)

Water Supply Access

- ⦿ Primary
 - Course Owns Rights & Has Control Over Access to its Water Supplies
 - Most Common with Groundwater Supplied Facilities
- ⦿ Secondary
 - Course Relies on Third Party for Water Deliveries
 - Municipal
 - Irrigation Districts
 - CAP

Water Use Limitations - AMAs

- ⦿ Surface Water Rights
 - Appurtenant to Land
 - Typically within Irrigation Districts
- ⦿ CAP Contracts/Subcontracts-1.525 Million AF Supply
 - M&I Subcontractors
 - Excess Water
 - Year to Year Subcontracts
 - Indian Contracts
 - On Reservation Use
 - Leases for Off Reservation Use
- ⦿ Effluent Contracts
 - Varies with Jurisdiction
- ⦿ Groundwater

Groundwater Use Limitations - AMAs

- Physical Availability
- Legal Availability
 - Service Area Rights (Water Provider Deliveries)
 - Grandfathered Groundwater Rights (GFRs)
 - Type 1 GFR
 - Land formerly irrigated for crops/pasture, now retired
 - Restrictions on place of use, point of withdrawal
 - Type 2 GFR
 - Based on "industrial" uses in existence prior to 1980
 - Most common and most useful for turf facilities

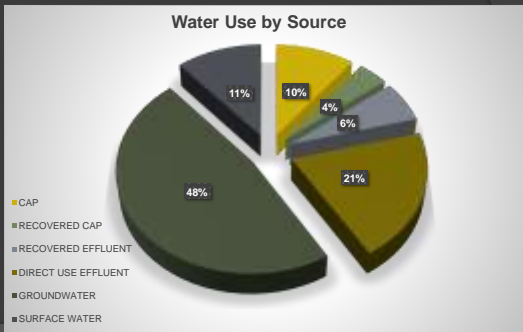
Management Plan Limitations

- Turf Facility Conservation Requirements
 - Only Apply to Facilities Using Groundwater
 - One drop of GW is all it takes
 - Conservation Allotments Based on Physical Features of Golf Course – acres of:
 - Turf
 - 90 acres max for 18 hole "Championship" course
 - Low Water Using Landscape Plantings
 - Water Features
 - 0.14 acres per hole – 2.52 acres max for 18 hole "Championship" course

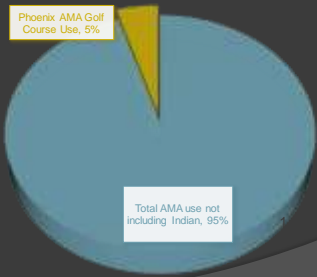
Turf Allotments

- Acre-Foot (AF) = 325,851 gallons
- Water Duty – Acre-Feet per Acre per Year
 - Phoenix AMA
 - Turf = 4.9 AF/Ac/Yr
 - Water Features = 6.2 AF/Ac/Yr
 - Low Water Use Plantings = 1.5 AF/Ac/Yr
 - Tucson AMA
 - Turf = 4.6 AF/Ac/Yr
 - Water Features = 5.8 AF/Ac/Yr
 - Low Water Use Plantings = 1.5 AF/Ac/Yr
 - Pinal AMA
 - Turf = 4.8 AF/Ac/Yr
 - Water Features = 6.2 AF/Ac/Yr
 - Low Water Use Plantings = 1.5 AF/Ac/Yr

2014 Golf Course Water Use, All AMAs



Golf Usage in the Phoenix AMA in 2014 compared to all other users



ADWR Enforcement

- Annual Groundwater Use Limited by Available Rights
- Turf Facility Annual Enforcement Based on Credit & Debit System
 - Max Credit Accrual = 20% of Conservation Allotment
 - Max Debit = 20% of Conservation Allotment
- Incentives for Reclaimed Water Use
 - 1 AF of Effluent = 0.6 AF Against Allotment (0.7 in Tucson AMA)
- Conservation Plans Required

Annual Water Withdrawal and Use Reports

- Due March 31st
- Individual User Reports may be filed online
- Link is www.azwater.gov
- Will have on-site staff assistance available in Tucson, Pinal, Prescott

Fourth Management Plan

- No change to the Agricultural Programs
- No change to the Turf Program
- Updates to some MNPCCP BMP descriptions and changes to other Municipal Programs-
- Simplified Total GPCD Program based on a percent reduction (eliminate the component method)

Fourth Management Plan

(Continued)

- How do we increase the water supply?
- How do we decrease groundwater dependency?
- How can we respond to/prepare for change?
- Establish collaborative/cooperative water management
- Flexible/responsive management approaches
- Examine/define infrastructure needs

Questions?

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